

REMARKS

Claims 1-25 were pending in this application.

Claims 1-25 have been rejected.

Claims 1, 5-7, 9-11, 15-17, 19-21, 23, and 25 have been amended as shown above.

Claims 8, 18, and 24 have been cancelled.

Claims 1-7, 9-17, 19-23, and 25 remain pending in this application.

Reconsideration and full allowance of Claims 1-7, 9-17, 19-23, and 25 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 1-25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,680,564 to Divivier et al. (“*Divivier*”) in view of U.S. Patent No. 5,450,605 to Grochowski et al. (“*Grochowski*”). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (*Fed. Cir.* 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (*Fed. Cir.* 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (*Fed. Cir.* 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d

1443, 1444 (*Fed. Cir.* 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (*Fed. Cir.* 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (*Fed. Cir.* 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (*Fed. Cir.* 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (*Fed. Cir.* 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP* § 2142).

Divivier recites that instruction bytes fetched from a cache memory or an external memory may be loaded into a first prefetch buffer and/or a second prefetch buffer. (*Abstract*). *Divivier* also recites that “an entire cache line” can be transferred to the prefetch buffer(s) in a single cycle. (*Col. 4, Lines 54-55*).

Claims 1, 11, and 21 have been amended to recite that instruction syllables from “multiple cache lines of [an] instruction cache” may be fetched “during a single fetch.”

The Office Action has not shown that *Divivier* recites these elements of Claims 1, 11, and 21. In particular, the Office Action has not shown that *Divivier* recites that instruction syllables from “multiple cache lines of [an] instruction cache” may be fetched “during a single fetch” as recited in Claims 1, 11, and 21. Moreover, *Divivier* actually recites that an “entire cache line” is transferred to the prefetch buffer(s) in a single cycle. The Patent Office must explain how it would be obvious to modify *Divivier* in light of this express recitation.

Claims 1, 11, and 21 also recite that a “stop bit in a highest syllable of one of the instructions” is used to determine whether every syllable of the instruction has been stored in the first buffer. The Office Action states that *Divivier* does not disclose these elements of Claims 1, 11, and 21. (*Office Action, Page 4, Last paragraph*). The Office Action then asserts that *Grochowski* discloses these elements of the claims and that it would be obvious to combine *Divivier* and *Grochowski*. (*Office Action, Page 4, Last paragraph*).

Grochowski recites a method and apparatus for determining the length of variable-length instructions. (*Abstract*). The apparatus includes an instruction cache for storing the instructions. (*Col. 4, Lines 54-55*). The apparatus also includes an end bit cache that separately stores bits identifying the end of each byte in the instructions. (*Col. 5, Lines 6-10*). Various other components in the apparatus are used to identify the boundaries between instructions and to issue instructions into multiple decoders. (*Abstract; Col. 5, Line 65 – Col. 7, Line 42*).

Grochowski fails to disclose, teach, or suggest various elements of Claims 1, 11, and 21. First, Claims 1, 11, and 21 recite that a “stop bit” is “in a highest syllable of one of the instructions.” *Grochowski* recites that the bits identifying the end of instruction bytes are stored

in an end bit cache, and the instructions are stored in an instruction cache. In other words, the bits identifying the end of instruction bytes are not part of the instructions. As a result, *Grochowski* fails to disclose, teach, or suggest a “stop bit” located in the “highest syllable of one of the instructions” as recited in Claims 1, 11, and 21.

Second, the whole purpose of *Grochowski* is to separate instructions so that multiple instructions may be issued to multiple instruction decoders. (*Col. 2, Lines 51-55*). However, *Divivier* recites a pipelined microprocessor that includes “a decoder.” (*Col. 3, Lines 45-46*). Without multiple decoders, the apparatus of *Grochowski* would not provide any of the benefits noted in *Grochowski*. While the Office Action cites column 1, lines 19-35 and column 2, line 36-55 of *Grochowski* as providing the motivation to combine the references, both portions of *Grochowski* deal with processors having multiple “processing paths” (each of which would include a decoder). Based on this, the Office Action has not provided a suitable motivation as to why one skilled in the art would combine *Grochowski* with *Divivier*.

For these reasons, the Office Action has not established a *prima facie* case of obviousness against Claims 1, 11, and 21 (and their dependent claims). Accordingly, the Applicants respectfully request withdrawal of the § 103 rejection and full allowance of Claims 1-7, 9-17, 19-23, and 25

II. CONCLUSION

The Applicants respectfully assert that all pending claims in this application are in condition for allowance and respectfully request full allowance of the claims.

SUMMARY

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at wmunck@davismunck.com.

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

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